



Department of Environmental Prote

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May 15, 1995

Virginia B. Wetherell Secretary

Jeff Adams
Code 1859
Department of the Navy
Southern Division
Naval Facilities Engineering Command
P.O. Box 190010
North Charleston, South Carolina 29419-9010

Re: Remedial Investigation and Feasibility Study, Phase IIA

- Draft <u>Technical Memorandum No. 5</u>, <u>Groundwater Assessment</u>, March, 1995
- Draft <u>Technical Memorandum No. 6, Definition of Operable Units</u>, March, 1995
- Draft <u>Technical Memorandum No. 7, Phase IIB Work Plan</u>, March, 1995

Dear Mr. Adams:

We have reviewed the above referenced document and provide the following comments.

Technical Memorandum No. 5

- On Figure 1-3 (Water Supply Wells within 4 Miles of NAS Whiting Field Boundary), two private wells are indicated east and southeast of the base. These wells should be sampled and have full scan analysis, if this has not already been done.
- In Section 4.1.2 (Groundwater Samples from Monitoring Wells) on page 4-2, the document indicates intermediate and deep groundwater samples will be compared to the shallow background wells as no deep or intermediate background wells were established. This may not be a conservative comparison, as the shallow sand and gravel aquifer will have constituents not reflective of the intermediate or deep portion of the aquifer. This is often the case for inorganics.

This concern can be seen in the background screening

May 10, 1995 NAS Whiting Field Page 2

criteria (BGC) which was established. For example, the BGC for beryllium (30.6 μ g/L), chromium (872 μ g/L), lead (20.6 μ g/L), and nickel (744 μ g/L) are above the state MCL of 4, 100, 15, and 100 μ g/L, respectively. This also may be indicative that some wells may not be truly representative of background conditions.

Technical Memorandum No. 6

- 1. Figure 1-2 (Location of Sites at NAS Whiting Field) is confusing, as it has the old Site numbers. The text explains the changes in site numbering, so all figures should reflect that change. Only Figure 1-3 should be necessary to represent the overall site picture.
- 2. Since the Clear Creek Floodplain has been designated as an Operable Unit, we recommend providing it with a site number (e.g., Site 24). Also, Figures 1-2 and 1-3 should indicate the area defined as the Clear Creek Floodplain.

Technical Memorandum No. 7

- 1. The Executive Summary indicates that OU 7 (Clear Creek Floodplain) will be investigated under a separate task order at a later time. We believe the Clear Creek Floodplain should be provided with a higher priority. Many of the other operable units on the base pose relatively low threat to the environment, and possibly human health, due to their limited access or low level of contamination. Although the extent of groundwater contamination (plume) has yet to be fully defined, the majority of the groundwater beneath the facility which is used by NAS Whiting Field is filtered and treated. However, the Clear Creek Floodplain has been found to have contamination which may be causing injury to biota. This floodplain also is inhabited by the state listed endangered white-top pitcher plant (Sarracenia leucophylla). Prolonged exposure to contamination will potentially increase the extent of compensable natural resource injury. Therefore, we recommend an expeditious investigation of contamination and ecological risk in the Clear Creek Floodplain so that appropriate restoration and compensation measures can be implemented as soon as possible.
- 2. In Section 4.3 (Modified Sampling Method), it

May 10, 1995 NAS Whiting Field Page 3

discusses the problem with high turbidity in groundwater samples using a bailer. However, a submersible pump is used for purging and the purged water apparently shows low turbidity. It appears that sampling via some pumping methodology would be preferable to a bailer. This section attributes the turbidity to the impact of and operation of the bailer. This seems to indicate that the bailer operator may be lowering the bailer too quickly. A bailer should contact the groundwater gradually, not with an impact.

- In Figure 5-10 (Sites 21B, 21C, and 21D, Location of Surface Soil Samples) the location of the ravine which bisects Site 21C is not shown. This sharp topographic drainage feature should be indicated on all maps for this site. This is a primary location of surface soil or contaminant migration from the site.
- 4. In Section 6.4 (Operable Unit 6), surface soil samples need to be performed in the ravine bisecting Site 21C, along the sides of the ravine, and in the ravine downgradient from the site.
- 5. For Figure 7-11, refer to comments #3 and #4 concerning proposed surface soil sampling locations at Site 21C.

Please keep us informed of the investigative and remedial activities at Whiting Field. Should you have any questions, please contact me at (904)487-2231.

John I

John W. Mitchell

Natural Resource Trustee Project

Manager, Office of

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